

I. AMENDMENTS

AMENDMENTS TO THE CLAIMS

Cancel claim 30 without prejudice to renewal.

Please enter the amendments to claim 16, as shown below.

Please enter new claims 42-72, as shown below.

1.-15. (Canceled)

16. (Currently Amended) A method for inhibiting a binding event between a selectin and a selectin ligand, said method comprising:

contacting a cell that produces said selectin ligand with an agent that inhibits the sulfation activity of a ~~sulfotransferase selected from the group consisting of~~ glycosyl sulfotransferase-3 (GST-3) polypeptide, KSGal6ST, and homologs thereof, wherein the GST-3 polypeptide catalyzes the transfer of a sulfate group from a donor compound to a selectin ligand precursor, wherein the GST-3 polypeptide is encoded by a nucleic acid comprising a sequence that is at least 75% identical to the sequence set forth in SEQ ID NO:2, and wherein inhibition of said sulfation activity inhibits a binding event between the selectin and the selectin ligand.

17. (Original) The method according to Claim 16, wherein said agent is a small molecule.

18. (Withdrawn) A method of inhibiting a selectin mediated binding event in a mammalian host, said method comprising:

administering to said host an effective amount of a pharmaceutical composition comprising an active agent that modulates the sulfation activity of a sulfotransferase selected from the group consisting of glycosyl sulfotransferase-3 (GST-3) and KSGal6ST and homologues thereof.

19. (Withdrawn) The method according to Claim 18, wherein said active agent inhibits the sulfation activity of said glycosyl sulfotransferase.

20. (Withdrawn) The method according to Claim 19, wherein said agent is a small molecule.

21. (Canceled)

22. (Withdrawn) The method according to Claim 19, wherein said active agent modulates the expression of said sulfotransferase.

23. (Withdrawn) A method of modulating a symptom in a mammalian host of a disease condition associated with a selectin mediated binding event, said method comprising:

administering to said host a pharmaceutical composition comprising an effective amount of an active agent that modulates the sulfation activity of a sulfotransferase selected from the group consisting of glycosyl sulfotransferase-3 (GST-3) and KSGal6ST and homologues thereof.

24. (Withdrawn) The method according to Claim 23, wherein said symptom is inflammation.

25.-30. (Canceled)

31. (Previously presented) The method of claim 16, wherein the selectin ligand is selected from the group consisting of an L-selectin ligand, a P-selectin ligand, and an E-selectin ligand.

32. (Previously presented) The method of claim 16, wherein the selectin is an L-selectin, and the selectin ligand is an L-selectin ligand.

33. (Withdrawn) The method of claim 19, wherein the agent is an antibody specific for GST-3.

34. (Withdrawn) The method of claim 19, wherein the agent is a small molecule.

35. (Withdrawn) The method of claim 18, wherein the GST-3 is encoded by a nucleic acid having a sequence that is at least 75% identical to SEQ ID NO:2.

36. (Withdrawn) The method of claim 23, wherein said disease condition is selected from the group consisting of inflammation, rheumatoid arthritis, Sjogren's syndrome, Hashimoto's disease, Grave's disease, diabetes, ulcerative colitis, dermatitis, inflammation-associated or allergic reaction

patterns of the skin, atopic dermatitis, infantile eczema, contact dermatitis, psoriasis lichen planus, and tissue rejection during transplantation.

37. (Withdrawn) The method of claim 23, wherein the disease condition is tissue rejection.
38. (Withdrawn) The method of claim 23, wherein the disease condition is bronchial asthma.
39. (Withdrawn) The method of claim 23, wherein the disease condition is rheumatoid arthritis.
40. (Withdrawn) The method of claim 23, wherein the disease condition is diabetes.
41. (Withdrawn) The method of claim 24, wherein the inflammation is skin inflammation.
42. (New) The method of claim 16, wherein the GST-3 polypeptide is encoded by a nucleic acid comprising a sequence that is at least 90% identical to SEQ ID NO:2.
43. (New) The method of claim 16, wherein the GST-3 polypeptide is encoded by a nucleic acid comprising a sequence that is at least 95% identical to SEQ ID NO:2.
44. (New) The method of claim 16, wherein the GST-3 polypeptide is encoded by a nucleic acid comprising the nucleotide sequence as set forth in SEQ ID NO:2.
45. (New) The method of claim 16, wherein the cell is a high endothelial cell.
46. (New) The method of claim 32, wherein said L-selectin ligand is selected from GlyCAM-1, CD34, MAdCAM-1, Sgp200, and podocalyxin.
47. (New) The method of claim 16, wherein said agent is an antibody specific for GST-3.
48. (New) The method of claim 47, wherein said antibody is a polyclonal antibody.

49. (New) The method of claim 47, wherein said antibody is a monoclonal antibody.

50. (New) A method for inhibiting a binding event between a selectin and a selectin ligand, said method comprising:

contacting a glycosyl sulfotransferase-3 (GST-3) polypeptide with an agent that inhibits sulfation activity of the GST-3 polypeptide, wherein the GST-3 polypeptide catalyzes the transfer of a sulfate group from a donor compound to a selectin ligand precursor, wherein the GST-3 polypeptide comprises an amino acid sequence that is at least 60% identical to the sequence set forth in SEQ ID NO:1, and wherein inhibition of said sulfation activity inhibits a binding event between the selectin and the selectin ligand.

51. (New) The method of claim 50, wherein said amino acid sequence is encoded by a nucleic acid comprising a nucleotide sequence that is at least 75% identical to SEQ ID NO:2.

52. (New) The method of claim 50, wherein said amino acid sequence is encoded by a nucleic acid comprising a nucleotide sequence that is at least 90% identical to SEQ ID NO:2.

53. (New) The method of claim 50, wherein said amino acid sequence is encoded by a nucleic acid comprising a nucleotide sequence that is at least 95% identical to SEQ ID NO:2. [

54. (New) The method of claim 50, wherein the GST-3 polypeptide comprises the amino acid sequence as set forth in SEQ ID NO:1.

55. (New) The method of claim 50, wherein the GST-3 polypeptide is encoded by a nucleic acid comprising the nucleotide sequence as set forth in SEQ ID NO:2.

56. (New) The method according to claim 50, wherein said agent is a small molecule.

57. (New) The method of claim 50, wherein the selectin ligand is selected from the group consisting of an L-selectin ligand, a P-selectin ligand, and an E-selectin ligand.

58. (New) The method of claim 50, wherein the selectin is an L-selectin, and the selectin ligand is an L-selectin ligand.
59. (New) The method of claim 58, wherein said L-selectin ligand is selected from GlyCAM-1, CD34, MAdCAM-1, Sgp200, and podocalyxin.
60. (New) The method of claim 50, wherein said agent is an antibody specific for GST-3.
61. (New) The method of claim 60, wherein said antibody is a polyclonal antibody.
62. (New) The method of claim 60, wherein said antibody is a monoclonal antibody.
63. (New) A method for inhibiting a binding event between a selectin and a selectin ligand, said method comprising:
contacting a cell that produces said selectin ligand with an agent that inhibits the sulfation activity of a glycosyl sulfotransferase-3 (GST-3) polypeptide, wherein the GST-3 polypeptide catalyzes the transfer of a sulfate group from a donor compound to a selectin ligand precursor, wherein the GST-3 polypeptide comprises an amino acid sequence that is at least 60% identical to the amino acid sequence set forth in SEQ ID NO:1, and wherein inhibition of said sulfation activity inhibits a binding event between the selectin and the selectin ligand.
64. (New) The method of claim 63, wherein the selectin ligand is selected from an L-selectin ligand, a P-selectin ligand, and an E-selectin ligand.
65. (New) The method of claim 63, wherein the selectin is an L-selectin, and the selectin ligand is an L-selectin ligand.
66. (New) The method of claim 65, wherein said L-selectin ligand is selected from GlyCAM-1, CD34, MAdCAM-1, Sgp200, and podocalyxin.
67. (New) The method of claim 63, wherein the cell is a high endothelial cell.

68. (New) The method of claim 63, wherein said agent is an antibody specific for GST-3.
69. (New) The method of claim 68, wherein said antibody is a polyclonal antibody.
70. (New) The method of claim 68, wherein said antibody is a monoclonal antibody.
71. (New) The method of claim 63, wherein said agent is a small molecule.
72. (New) The method of claim 63, wherein the GST-3 polypeptide comprises the amino acid sequence set forth in SEQ ID NO:1.